AMENDMENT TO THE ABSTRACT

The following abstract will replace all prior versions of the abstract in the application:

ABSTRACT

A bone implant (10) is implanted in a pre-given or created cavity parallel to an implant axis (I) and without substantial rotation. The implant comprises on theincludes, on an implant portion to be implanted, cutting edges (14), which do not extend in a common plane with the implant axis and are facing toward the distal end of the implant. The implant further comprises also includes surface ranges (16) of a material which that is liquefiable by mechanical oscillations. The cutting edges (14) are dimensioned in-such a manner that they are lodged in the cavity wall after implantation. For the implantation, the implant is impinged with mechanical oscillations, resulting in the thermoplastic material being at least partially liquefied and pressed into unevennesses and pores of the cavity wall to form a form-fit -There it forms a form-fit-and/or material-fit connection between implant (10) and cavity wall, when re-solidified. The cutting edges (14) anchor the implant in the cavity wall, in a manner similar to the anchoring of a screw-shaped implant. As the implantation does not require any rotation, the implant may have a shape which is neither circular cylindrical nor circular conical. Thus it is better stabilized against torsional loads than the screw-like implant. The stability of the implant is further improved by its anchoring through the liquefiable material, in particular against loads pulling the implant out of the cavity. Due to the stabilization through the liquefiable material, the implant can be loaded immediately after implantation. The implant is

National Phase of PCT Application No.: PCT/CH2005/000043 Amendment Dated: April 7, 2005

e.g. a dental implant.

(Fig. 3)